Conversion: A typological and functional analysis of the morphophonological structure of zero-derivation in English word formation.

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Abstract: It will be argued that the phenomenon of conversion or zero-derivation, typical of marginally inflected languages, such as English, solves the problem of word formation without affixal attachment to the base (Spencer 2001, Plag 1999, Beard 1998, Katamba 1993, Bauer 1988, et al.). The scope of this study is to expose the most productive cases of conversion and show how the unmarked derivational affix may produce new words at the same pace as an overt form. Moreover, it will be shown that being a stem language, ModGreek exhibits instances of conversion by using identical stems for both Nouns and Verbs.
Key words: converted form, overtly affixed, uninflected

1. Conversion or zero-affixation?

An extremely popular type of word-formation which reflects a simple change of category without any functional change is transposition. More specifically, transposing a lexeme from one word class to another without affixation has been referred to as conversion or zero derivation (Marchand 1969:359). New words may be formed without modifying the form of the input word that serves as the base. That is, conversion is a derivational process that involves no overt affixation. And, since there do not appear to be morphological restrictions on the forms that can undergo the process, any lexeme can undergo conversion into any of the open form classes. That is, both simple and compound words of any form class (i.e. nouns, verbs, adjectives, adverbs and even particles) are acceptable inputs to the conversion process; whereas the converted bases (i.e. the outputs) are words of almost any form class. Thus, nouns such as *star, hammer, water, head* can be converted into verbs, respectively, *to star, to hammer, to water, to head*. Also, adjectives such as *cool, empty, better*, etc. may convert into the verbs *to cool, to empty, to better*, if the need arises. In addition, converted verbs may derive from adverbs (e.g. *down* → *to down*) or even particles (e.g. *up* → *to up*), etc. Similarly, though not as productive, verbs, such as *to attack, to catch, to drop out*, etc. can convert into the nouns *an attack, a catch (of fish), a drop-out*, etc. It is quite evident then from these examples that derivation is worked out by means of a zero suffix, hence the term zero-derivation for conversion. And because of the variety of meanings of this zero-affix, i.e. the semantic versatility of the process, as we shall see in the following sections, conversion is referred to as *functional shift* (Bauer 1988:32).

Nevertheless, despite the fact that the general consensus of researchers is that conversion is an extremely productive process and accounts of the meaning of the zero-affix are numerous as well as diverse, there seem to be some kind of structural and semantic restrictions which weigh against conversion as a separate operation, a process in its own right (i.e. outside affixation). Evidence shows that this is due to the fact that we find precisely the same semantic relations between converted pairs of words as between derivational pairs. For example, for every converted form like *to clean, to tidy, to empty* we find at least an equal number of affixed derivatives with exactly the same structural –semantic relation: *to widen, to stabilize, to solidify*, all meaning 'to make,

render clean, tidy, empty' and 'to make , render wide, stable, solid', respectively. In other words, the syntacticosemantic pattern of both affixal derivatives and zero-morph converted forms is identical, a view which is actually the main scope of this study. To quote Marchand, in the affixed derivates "in the *legalize* group the content element is expressed by the overt morpheme *–ize* while, in the *clean-* group, the same content has no counterpart in phonic expression. As a sign is a two facet linguistic entity, we say that the derivational morpheme is (phonically) zero marked in the case of *clean* 'make clean'. We speak of zero-derived deadjectival verbs." (Marchand 1969:359)[1].

2. Types of converted forms

As already mentioned, any kind of sign may undergo conversion: nouns, adjectives, verbs, adverbs, prepositions, onomatopoeic words, and phrases. In what follows, the clear cases of conversion will be exposed first, according to the relevant literature, while in the second part of this section, marginal cases, such as stress shift, will also be discussed thoroughly.

2.1 (a) Noun → Verb

The most common and extremely productive type, where the noun may be ±animate and ±abstract. Thus, it may denote persons, animals, or things. It may also imply an activity or event. Consider the data of 1.

1. Converted verb	Meaning	Semantic category[2]
(from Nouns denoting persons, animals or things) *father, captain, nurse witness, referee, hostess* *dog, wolf, parrot*	behave/act like/be X	similative / stative
Heap, bundle, group, arch, bridge, cash, cripple, fool, orphan	make into X	resultative
bag, bottle, jail, cable, can, carpet, coast, land, surface	put into / be in(to) X	locative
brake, hammer, comb, mirror, rope, ring, strap, blanket *eye, elbow, finger, hand*	use X	instrumental
Staff, butter, salt, wax, plaster, shelter	provide/coat with X	ornative
Dust, peel, skin, weed	deprive of/ remove X	privative
counterattack, experiment, campaign, gesture	perform X	performative

2.1 (b) Adjective → Verb

Deadjectival verbs form a smaller group. The productivity of deadjectival conversion is rather marginal due to the fact that a great number of them are precluded from conversion as they are derived through suffixation, i.e. affixation functions as blocking for such verbs (cf. *to *short* vs. *to shorten*, *to *formal* vs. *to formalize*, *to *domestic* vs. *to domesticate*). What is interesting here is that those that do convert are precluded from

[1] That is an apparent reason why Marchand identifies **conversion** with **zero-derivation**, by analogy to zero-affixation in inflectional morphology. (This view is not shared by other linguists, e.g. Katamba 1993:55).

[2] Mela-Athanasopoulou 2007.

affixation, e.g. *to *dirtify, to *enslow, to *endry, to *wetten*. I will leave this issue, however, for future research. Thus we have in 2.

2. Converted verb from adjectives	Meaning	Semantic category
cool, empty, clear, slow, narrow, tense, idle, slack, thin Comparative, superlative form of adjectives *better, lower, best, worst*	become X	inchoative
yellow, black, blunt, dirty, blind, empty, calm	make (more) X	causative

2.1 (c). Verb → Noun
Converted nouns from: **Transitive verbs:** *cheat, spy, command, drink, aid, attack, hunt, spread, cover, refill, cure, catch, dump, haunt*, etc.
Intransitive verbs: *cough, cry, fall, laugh, rise, drive, pass, retreat, delight, doubt*, etc.

With regard to their meaning, the majority of them converting from the 'move' and 'sound' class may denote activity or event, e.g. *advance, jump, ride, run, yell, cry*. Less frequent are the ones deriving from stative or emotion verbs, e.g. *doubt, hope, love, feel, desire*, etc.

2.2. Marginal cases of conversion.
2.2 (a). Onomatopoeia → Verb

Converted verb from onomatopoetic nouns and geminated forms	Meaning	Semantic category
burp, chuff, oink, ooh, hurrah, boo ding-dong, snip-snap, hurry-scurry, criss-cross, wig-wag	say / utter the sound of X	similative

2.2 (b). Particles → Verbs

Converted verbs from particles	Meaning	Semantic category
down, over, off, out, up e.g. *He upped and ran away.*	act as X	performative

2.2 (c). Converted Nouns from:
Phrases: *also-ran, has-been, know-how, forget-me-not.*
Idiosyncratic phrases combined with be: *be in a rush***,** *be in the clean / the know / the swim, /be on the boil / the go / the increase / the make / the move / the run / the wane* (Adams 1973)
Particles: *down, in, out,* e.g., *have an in*
Affixes: *-ism* (Quirk 1973)
Closed-class auxiliary verbs, e.g., *a must, a do, a don't*
All these minor cases of conversion, though marginal in terms of productivity, are very popular.

2.2 (d). Conversion by stress.
Here the most common case where stress changes one word class into another is with deverbal nouns of both complex and compound words (3), whereas conversion is stress neutral with denominal verbs(4).

3. Verb →	Noun by stress shift
re`fill	*`refill*
Ex`tract	*`extract*
per`mit	*`permit*
con`vict	*`convict*
mis`print	*`misprint*
inter`change	*`interchange*
runa`way	*`runaway*
over`flow	*`overflow*

4. Noun →	Verb
`pattern	*`pattern *pat`tern*
`patent	*`patent *pa`tent*
`picture	*`picture*
`question	*`question*
`register	*`register*
`document	*`document*

From the above picture, stress works normally with words prefixed with *con-, pro-, trans-, mis-* and *re-,* and not with *de-, dis-, un-* (Marchand 1969:79), e.g. **`defeat, **`display, **`unease.*

Moreover, stress-shift in conversion does not always occur even with productive cases such as those of converted deverbal nouns (5).

5. Verb	Noun
con`cern	*con`cern*
dis`pute	*dis`pute*
re`lease	*re`lease*
sup`port	*sup`port*
at`tack	*at`tack*

3. Why use zero-affixation?

So far, I have used the terms conversion and zero-affixation interchangeably, according to the general consensus in the linguistic literature. "What we call zero derivation is often termed 'conversion'" (Marchand 1969:360). The question I posit here is whether we are dealing with *the affixation of a zero morph* or with conversion, when we talk about formally unmarked derivatives. According to Sanders (1988), 'one word can be derived from another word of the same form in a language (only) if there is a precise analogue in the language where the same derivational function is marked in the derived word by an overt (nonzero) form." (Sanders 1988:160-161). Similarly, Marchand claims that "the derivational morpheme is (phonologically) zero-marked in the case of the converted verb, e.g. clean 'to make clean'." The question now is what makes native speakers sometimes prefer the overt affix derivation to conversion. One apparent reason for this choice lies in the semantics of both processes. Although their semantic categories coincide, as is supported further on, it seems that the more specific meaning lies in the overt affix derivation rather than conversion. To quote Plag, "semantically, conversion is the most general case in that the meanings of the derivatives with overt suffixes are a subset of the possible meanings of converted verbs…. Thus from the view of perception, overtly affixed forms are better than converted items." (Plag 1999:231). Besides, certain types of derived adjectives and nouns are precluded from conversion, e.g. $normal_{Adj}$ → *to *normal vs. to normalize,* $domestic_{Adj}$ → *to *domestic vs. to domesticate,* $moisture_{N}$ → *to *moisture vs. to moisturize,* $computer_{N}$ → *to *computer vs. to computerize,* $robot_{N}$ → *to *robot vs. to robotize*. Moreover, conversion is rather marginal with deadjectival verbs, anyway (cf. Plag 1999).

We now turn to the discussion of the syntacticosemantic pattern of both overt affix derivatives and converted derivatives. As mentioned earlier, converted verbs, for

example, can express all those meanings which overtly affixed verbs can. Consider the semantic categories of converted verbs and overt affix derivatives shown in 6.

6. Semantic Category	Meaning	Converted Verb	Overt Affix Verb
Locative	put in(to) /be in(to) X	*bag*	*containerize*
Ornative	provide/coat with X	*butter*	*acidize*
Resultative	make into X	*package*	*moisturize*
Performative	perform X	*campaign*	*humanize*
Similative	act like X/be X	*head*	*Americanize*
Instrumental	use X	*nail*	*aerosolize*
Privative	deprive of/remove X	*skin*	*disorganize*
Causative	make (more) X	*dry*	*publicize*
Inchoative	become X	*clear*	*socialize*

Now, with regard to the overt affix derived verb, a similar affixation can be processed with the less productive verb suffixes {*–ify*} and {*–ate*}. Thus, for example, we may have locative[3] *tubify*, resultative *plastify, methanate*, causative *syllabify, passivate*, etc.

Additionally, a similar account of the semantic categories of all three overt suffix verbs (with *–ize, -ify* and *–ate*) and the Modern Greek (MG) counterpart *–pi`o* (*-ποιώ*) is provided in Mela-Athanasopoulou (2007).

All this evidence weighs against conversion as a separate operation. Rather, both conversional pairs and overt affix pairs share identical semantic relations, i.e. either 'make X' or 'become X', that is properties of both transitive and intransitive verbs. For every semantic category of the converted verb, e.g. *to bag, to butter, to package*, etc. there is an equivalent number of overt-affix derivative verb, e.g. *to containerize, to acidize, to moisturize*, etc., respectively. Furthermore, as has already been mentioned, none of the converted verbs can affix, e.g. *to *baggize/*embag, to *butterize, to*empackage*, etc. And, none of the affixed verbs can convert, e.g. to *container, to *acid, to *moisture, to *public, to *social, etc. From the above picture, then, we conclude that conversional items are actually zero-marked variants of the same overt-affix derivatives.

4. Stem conversion in Modern Greek

4.1 Conversion with inflected stems

The weakening or even loss of the inflectional system in a language such as English, for example, cannot be the reason for the development of zero-derivation. Jespersen's naïve view that the rise of conversion is due to the loss of inflections (Jespersen 1956) cannot stand, as in stem languages, such as Greek, conversion **can** work with stems functioning as immediate elements for distinct word classes by the mere addition of the inflectional suffix only. According to Marchand, in Latin, a highly inflected language, zero-derivation is very productive. Thus we have a great number of denominal converted verbs which differ only in the inflectional suffix. e.g. *catena / catenare, corona / coronare, lacrima / lacrimare, cumulous / cumulare, locus / locare*, etc. (Marchand 1969:363).

Now, what has to be taken into consideration, of course, is that the native speaker is intuitively fully aware of the syntagmatic nature of the inflectional suffix which (suffix)

[3] For a more detailed description and distribution of overt affixed verbs see Plag, 1999, and Mela-Athanasopoulou, 2004.

is to be chosen as the need arises. The whole concept is that in highly inflected languages, such as MG, the word class is determined by the stem of the word rather than by the derivational suffix. A similar view has been supported by Ralli (1986) regarding gender in MG. Under this perspective the data of deadjectival and denominal converted verbs are numerous and fall under the schema of Figure 1.

STEM STEM
$X_{Noun + Infl} \rightarrow X_{Verb + Infl}$
Fig. 1 Conversion of Inflectional Stems in MG

Consider the data of 7(a-b)

7 (a) $STEM_{N+ Infl}$		→	$STEM_{V + Infl}$	
a`γap-i	love	→	*aγa`p-o*	I love
omi`l-ia	speech	→	*omi`l-o / mi`l-o*	I speak
ariθ`m-os	number	→	*ariθ`m-o*	I count
tra`γouδ-i	song	→	*traγou`δ-o*	I sing

.

7 (b) $STEM_{Adj+ Infl}$		→	$STEM_{V + Infl}$	
ar`γ-os	late; slow	→	*ar`γ-o*	I am late
`irem-os	calm	→	*ire`m-o*	I am calm
`afθon-os	abundant	→	*afθo`n-o*	I am abundant

Other forms of denominal or deadjectival verbs always involve an insertion of a derivational suffix attached to the stem and right before the inflectional suffix. In this case, we cannot talk of zero affixation. Consider the data (Table 1) according to Kleris and Babiniotis (1999)

Table 1. MG stem combined with derivational and inflectional affix.

STEM		Derivational Suffix	Inflectional Suffix	Derived Verb
δakr-	tear	-iz-	-o (unstressed)	*δakrizo*
steγ-	roof	-az-		*steγazo*
aδi-	empty	-az-		*aδiazo*
kont	short	-en-		*konteno*
voutir-	buttur	-on-		*voutirono*
efkol-	easy	-in-		*efkolino*
γalin-	quiet	-ev-		*γalinevo*
pos-	pose	-ar-[4]	-`o (stressed)	*pozaro*
seliδ-	page	-pi-[5]		*seliδopio*

Here, definitely we have the intervention of the derivational suffix (just before the inflectional one) attributing to the stem a meaning similar to the semantic categories proposed earlier in this study, e.g. locative, ornative, instrumental, etc., e.g. *steγazo, voutirono, karfono*, respectively.

Additionally, for a rather detailed description of converted nominalizations from adjectives, based on purely morphosemantic criteria, see Anastasiadi-Simeonidi, et al. (2003:385)

[4] All verbs with an -ar- (i.e. –aro) derivational suffix have a loan stem, e.g. *γousto-γoustaro, kopia-kopiaro, draiv-draivaro*, etc. (Mela-Athanasopoulou 2001).
[5] *-pi-(`o)* belongs to the category of the so called lexical derivational affixes (Kleris & Babiniotis 1999)

4.2 Conversion with uninflected forms

Stems that do not accept inflection in MG, are underived adverbs of location, time and manner, e.g. *pu* 'where', *`pano* 'up, over, on', *`kato* 'down, downstairs', *en`tos* 'inside', *ek`tos* 'outside, besides', *xθes* 'yesterday', *pos* 'how'. Moreover, archaic prepositions such as *syn* 'plus', *hyper* 'in favour of', *ka`ta* 'against', the negators *δen* 'not', *mi* 'no' and *ochi* 'no', the modal verbs such as *`prepi* 'must', the conjunctions *e`an, an* 'if' and other uninflected words can convert into Adjectives and Nouns without any affix attaching to them. The new word category is indicated by the article preceding it which (article) is highly inflected in terms of number, gender and case. The inflectional affix of the article, i.e. gender, number and case, will depend on the inflectional affix of the Noun which it refers to. The article with the zero marked word (Adverb, Preposition, Conjunction, negator and modal) will function as the determiners of the Noun.

This category of uninflected word falls under the following schema (Figure 2), in the environment of ARTICLE + Infl.

STEM → STEM
$X_{\text{Adv/Prep/Conjunct/negators/modal}}$ $X_{\text{Noun/Adj}}$.

Fig. 2 Conversion of uninflected stems in MG.

This is exemplified in 8:

8. ADVERB → ADJECTIVE / ARTICLE + Infl.

`pano[6]	→	$o_{\text{MSC Sg Noun}}$	$pano_{\text{zero marked for MSC Sg Noun}}$	orofos $_{\text{MSC Sg Noun}}$
		the	upper	floor
		$tu_{\text{MSC Sg Gen}}$	$pano_{\text{zero marked for MSC Sg Gen}}$	orofou $_{\text{MSC Sg Gen}}$
		of the	upper	floor
`kato	→	$i_{\text{Fem Sg Noun}}$	$kato_{\text{zero marked for Fem Sg Noun}}$	platia $_{\text{Fem Sg Noun}}$
		the	lower	square

PREPOSITION → NOUN/ARTICLE + Infl.
hyper/kata → $ta_{\text{NTR pl nom/acc}}$ $hyper_{\text{N zero marked}}$ ke ta $kata_{\text{N zero marked}}$
'in favour of/against'
syn/plin → ta $_{\text{NTR pl nom/acc}}$ $syn_{\text{N zero marked}}$ ke ta $plin_{\text{N zero marked}}$
'plus/minus'

CONJUNCTION → NOUN/ARTICLE + Infl.
an/ean 'if' → $to_{\text{NTR pl nom/acc}}$ $an_{\text{N zero marked}}$ ke to $oti_{\text{N zero marked}}$
oti 'that'

Concluding this section we have to admit that zero derivation is done in MG with both inflected and uninflected words. I believe that the latter case needs further investigation as it involves other parameters such as syntax for example.

[6] Consider idiomatic phrases such as *Pire ta pano tou* 'he is in a better mood' or *I zoi tu ine γemati prepi* 'his life is full of musts' (Αθανασιάδου & Μηλαπίδης 2004: 99).

5. Conclusion

The main purpose of this study was to show that conversion or more precisely zero derivation (as we have concluded finally) is an equally productive process of word formation as that of affixation and compounding. Further, I showed that the semantic categories of the converted item are the same as those of the derived one. In the last section, I showed that zero derivation does occur in inflected languages, such as MG, as inflection does not preclude zero derivation. The area which I have left for further research is the case of conversion of the compound word.

References

Adams, V. (1973). *An Introduction to Modern English Word-Formation*. London: Longmans.

Αθανασιάδου, Α. & Μ. Μηλαπίδης (2004). *Γνωστικές Ανιχνεύσεις στη Γλώσσα και στη Γλωσσολογία*. Θεσσαλονίκη: University Studio Press. Μετάφραση του *Cognitive Explanation of Language and Linguistics* by Rene Divren & Marjolijn Verspoor, Amsterdam: Benjamins.

Αναστασιάδη-Συμεωνίδη, Α., Α. Ευθυμίου & Α. Φλιάτουρας (2004). Φαινόμενα ουσιαστικοποίησης στη Νέα Ελληνική, *Ελληνικά ως δεύτερη ή ξένη γλώσσα*. Θεσσαλονίκη.

Bauer, L. (1988). *Introducing Linguistic Morphology*. Edinburgh University Press. UK.

Beard, R. (1998). "Derivation". In A. Spencer & A. Zwicky (eds), *The Handbook of Morphology*. Blackwell, UK, 44-65.

Jespersen, O. (1956). *A Modern English Grammar on Historical Principles*. London: George Allen and Unwin.

Katamba, F. (1993). *Morphology*. Macmillan, UK.

Κλαίρης, Χ. & Γ. Μπαμπινιώτης. (1999). *Γραμματική της Νέας Ελληνικής*. Αθήνα: Ελληνικά Γράμματα.

Marchand, H. (1969). *The categories and types of present-day English word formation*. Munich: C. H. Beck Verlagsbuchhandlung.

Mela-Athanasopoulou, E. (2004). "The derivational suffix in English: its categorial and semantic effect". In E. Kitis (ed.) *Working Papers in Linguistics*. Aristotle University of Thessaloniki, School of English, 85-102.

Mela-Athanasopoulou, E. (2007). "The polysemy of –ize derivatives and the ModGreek counterpart –pi`o". In E. Agathopoulou et al. (eds), *Selected Papers on Theoretical and Applied Linguistics, 17th International Symposium*. Thessaloniki: Monochromia, 157-167.

Plag, I. (1999). *Morphological productivity* (*Topics in English Linguistics 28*). Berlin: Mouton de Gruyer.

Quirk, R. & S. Greenbaum. (1996 [1973]). *A University Grammar of English*. China: Longman.

Ralli, A. (1986). "Κλίση και Παραγωγή". *Studies in Greek Linguistics*. Thessaloniki: Kyriakides, 6: 29-47.

Sandres, G. (1988). "Zero Derivation and the Overt Analogon Criterion". In M. Hammond & M. Noonan (eds), *Theoretical Morphology*. SanDiego-London: Academic Press, 155-175.

Spencer, A. (2001). "Morphology". In M. Aronoff & J. Rees-Miller (eds) *The Handbook of Linguistics*. USA: Blackwell, 213-237.